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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,077	04/12/2005	James A. Proctor JR.	080587	2573

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EXAMINER	
SOBUTKA, PHILIP	

ART UNIT	PAPER NUMBER
2618	

NOTIFICATION DATE	DELIVERY MODE
10/08/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/531,077	PROCTOR ET AL.	
	Examiner	Art Unit	
	PHILIP J. SOBUTKA	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19,24-28,31-39 and 44-54* is/are rejected.

7)☒ Claim(s) *8-12,20-23,29,30 and 40-59* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 April 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7,13-19,24-28,31,48-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Lau et al (US 6,690,657)

Consider claim 1. Lau teaches a method for managing the operation of a frequency translating repeater (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39), the frequency translating repeater capable of establishing a first radio frequency (RF) link having a first and second frequency channel, the WLAN environment governed by a communication protocol, the WLAN environment capable of having at least another WLAN node compliant with the communication protocol and capable of establishing a second RF) link to the frequency translating repeater on either the first or second frequency channel, the method comprising:

establishing a management link with the at least another WLAN node at a higher layer of the communication protocol (Lau teaches management at higher levels see column 10, lines 21-29); and

configuring at least one of the first and second RF link based on a message associated with the communication protocol and transferred on the management link between the frequency translating repeater and the at least another WLAN node (Lau teaches management controlling configuration see column 10, lines 21-29, 39-58. Note that the claim does not require the repeater to be controlled, just the link passing through the repeater, however note also that the repeater frequency selection can be controlled based on the repeated message headers. Control of the frequency translating repeaters is shown in figures 4-6 and column 5, line 3-37, column 5, line 59 – column 6, line 6).

Consider claim 2. Lau teaches the method according to claim 1, wherein the establishing a management link includes detecting a waveform modulated in accordance with the higher layer of the communication protocol on at least one of the first and the second RF link (Lau teaches management controlling configuration see column 10, lines 21-29, 39-58).

Consider claim 3. Lau teaches the method according to claim 1, wherein the establishing a management link includes modulating a waveform in accordance with the higher layer of the communication protocol on at least one of the first and the second RF link (Lau teaches management controlling configuration see column 10, lines 21-29, 39-58).

Consider claim 4. Lau teaches the method according to claim 1, wherein the configuring at least one of the first and second RF links includes configuring the frequency translating repeater to translate a signal transmitted on one of the first and

the second RF link to the other of the first and the second RF link based on the message (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39).

Consider claim 5. Lau teaches the method according to claim 1, wherein the configuring at least one of the first and second RF links includes configuring the frequency translating repeater to translate a signal transmitted on one of the first and the second frequency channel to an other of the first and the second frequency channel based on the message (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39).

Consider claim 6. Lau teaches the method according to claim 1, wherein the configuring at least one of the first and second RF links includes configuring the frequency translating repeater change the frequency of at least one of the first or second frequency channels (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39).

Consider claim 7. Lau teaches the method according to claim 1, further comprising: monitoring at least the first and second RF links; and detecting whether a signal is present on one of the at least first and second RF links (Lau detects signal presence see column 5, line 38- column 6, line 24).

Consider claim 13. Lau teaches a frequency translating repeater (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39) capable of use within a W-LAN (WLAN see column 1, lines 10-15) environment

governed by a communication protocol and capable of having at least another WLAN node compliant with the communication protocol, the frequency translating repeater comprising:

a transceiver section (see figures 14-17); and

a processor coupled to the transceiver section (Figure 14, item 140, figure 17, items 246), the processor configured to: be capable of establishing a first RF link having a first and second frequency channel, wherein the at least another WLAN node is capable of establishing an RF with the frequency translating repeater (Lau column 7, lines 45, column 8, line 30, column 10, lines 21-29)

establish an in-band management link with the at least another W-LAN node at a higher layer of the communication protocol (Lau teaches management controlling configuration see column 8, lines 50-68, column 10, lines 21-29, 39-58), and

configure at least one of the first and second RF links based on a message associated with the communication protocol and transferred on the management link between the frequency translating repeater and the at least another WLAN node (Lau teaches management controlling configuration see column 10, lines 21-29, 39-58. Note that the claim does not require the repeater to be controlled, just the link passing through the repeater, however note also that the repeater frequency selection can be controlled based on the repeated message headers. Control of the frequency translating repeaters is shown in figures 4-6 and column 5, line 3-37, column 5, line 59 – column 6, line 6).

Consider claim 14. Lau teaches the frequency translating repeater according to claim 13, wherein the transceiver section includes a detection circuit to detect a waveform, modulated in accordance with the higher layer of the communication protocol, on at least one of the first and the second RF link (Lau column 7, lines 45, column 8, line 30, column 10, lines 21-29).

Consider claim 15. Lau teaches the frequency translating repeater according to claim 13, wherein the transceiver section includes a modulator to modulate a waveform in accordance with the higher layer of the communication protocol, on at least one of the first and the second RE link (Lau teaches management controlling configuration see column 10, lines 21-29, 39-58).

Consider claim 16. Lau teaches the frequency translating repeater according to claim 13, wherein the processor, in configuring at least one of the first and second RF links is further configured to configure the frequency translating repeater to translate a signal transmitted on one of the first and the second RE link to the other of the first and the second RE link based on the message (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39).

Consider claim 17. Lau teaches the frequency translating repeater according to claim 13, wherein the processor, in configuring at least one of the first and second RF links is further, configured to configure the frequency translating repeater to translate a signal transmitted on one of the first and the second frequency channel to an other of the first and the second frequency channel based on the message (Lau describes

channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39).

Consider claim 18. Lau teaches the frequency translating repeater according to claim 13, wherein the processor, in configuring at least one of the first and second RF links is further configured to configure the frequency translating repeater to translate a signal transmitted on one of the first and the second frequency channel to one of a third and the fourth frequency channel based on the message (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39).

Consider claim 19. Lau teaches the frequency translating repeater according to claim 17, wherein the processor is further configured to: monitor at least the first and second RF links; and detect whether a signal is present on one of the at least first and second 1LF links (Lau detects signal presence see column 5, line 38- column 6, line 24).

Consider claim 24. Lau teaches the frequency translating repeater of claim 13, further comprising an intermediate frequency (IF) unit configured to be capable of: down-converting a signal on the first RF link; and selecting one of the first and second frequency channels for connection to the transceiver (Lau teaches IF see column 7, lines 45 – column 8, lines 28, column 10, lines 2-15).

Consider claim 25. The frequency translating repeater of claim 24, wherein the IF unit is further configured to filter the down-converted signal from the one of the first and second frequency channels (Lau teaches IF see column 7, lines 45 – column 8, lines 28, column 10, lines 2-15).

Consider claim 26. Lau teaches the frequency translating repeater of claim 24, wherein the IF unit if further configured to: delay the down converted signal from the one of the first and second frequency channel during a period when a signal is not detected on an other of the first and second frequency channel, the delay to prevent a loss of at least a portion of the signal (Lau teaches delay see column 10, lines 15-20).

Consider claim 27. Lau teaches the frequency translating repeater of claim 13, further comprising a diode detector coupled to the transceiver and the processor, the diode detector configured to detect at one of: an IF signal, and a baseband signal (Lau teaches a diode detector column 8, lines 3-6).

Consider claim 28. Lau teaches the frequency translating repeater of claim 13, further comprising a matched filter detector coupled to the transceiver and the processor, the matched filter detector configured to detect at one of: an IF signal, and a RF signal (Lau teaches a filter detector see figure 14, BPF column 7, lines 45-57).

Consider claim 31. Lau teaches the frequency translating repeater according to claim 13, wherein the frequency translating repeater includes a non-regenerative repeater (Lau teaches non-regenerative embodiments figures 14, 15).

Consider claim 48. Lau teaches an apparatus for managing the operation of a frequency translating repeater (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39) within a wireless local area network (WLAN) environment, the: frequency translating repeater capable of establishing a first radio frequency (RF) link having a first and second frequency

channel, the WLAN environment governed by a communication protocol, the WLAN environment capable of having at least another W LAN node compliant with the communication protocol and capable of establishing a second RF link to the frequency translating repeater on either the first or second frequency channel, the apparatus comprising:

means for establishing a management link with the at least another WLAN node at a higher layer of the communication protocol (Lau teaches management controlling configuration see column 10, lines 21-29, 39-58); and

means for configuring at least one of the first and second RF link based on a message associated with the communication protocol and transferred on the management link between the frequency translating repeater and the at least another WLAN node (Lau teaches management controlling configuration see column 10, lines 21-29, 39-58. Note that the claim does not require the repeater to be controlled, just the link passing through the repeater, however note also that the repeater frequency selection can be controlled based on the repeated message headers. Control of the frequency translating repeaters is shown in figures 4-6 and column 5, line 3-37, column 5, line 59 – column 6, line 6).

Consider claim 49. Lau teaches the apparatus according to claim 48, wherein file means for establishing a management link includes means for detecting a waveform modulated in accordance with the higher layer of the communication protocol on at least one of the first and the second RF link (Lau detects signal presence see column 5, line 38- column 6, line 24).

Consider claim 50, Lau teaches the apparatus according to claim 48, wherein the means for establishing a management link includes means for modulating a waveform in accordance with the higher layer of the communication protocol on at least one of the first and the second RF link (Lau teaches management controlling configuration see column 10, lines 21-29, 39-58).

Consider claim 51. Lau teaches the apparatus according to claim 48, wherein the means for configuring at least one of the first and second RF links includes means for configuring the frequency translating repeater to translate a signal transmitted on one of the first and the second RF link to the other of the first and the second RF link based on the message (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39).

Consider claim 52. Lau teaches the apparatus according to claim 48, wherein the means for configuring at least one of the first and second RF links includes means for configuring the frequency translating repeater to translate a signal transmitted on one of the first and the second frequency channel to other of the first and the second frequency channel based on the message (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39).

Consider claim 53. Lau teaches the apparatus according to claim 48, wherein the means for configuring at least one of the first and second RF links includes means for configuring the frequency translating repeater change the frequency of at least one of the first or second frequency channels (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39).

Consider claim 54. Lau teaches the apparatus according to claim 48, further comprising: means for monitoring at least the first and second RF links; and means for detecting whether a signal is present on one of the at least first and second RF links (Lau detects signal presence see column 5, line 38- column 6, line 24).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 32-39, 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lau.

Consider claim 32. Lau teaches the frequency translating repeater according to claim 13, but lacks a teaching of further comprising a transmit antenna and a receive antenna, and wherein the transceiver is configured to transmit using the transmit antenna and to receive using the receive antenna. Note that Lau teaches the repeater having two antennas (see figures 1-8). Official Notice is taken that it is notoriously well know that providing separate transmit and receive antennas would increase signal isolation between the transmit and receive signals. Therefore it would have been obvious to one of ordinary skill in the art to modify Lau as shown in the claim in order to increase isolation between transmit and receive signals.

Consider claim 33. Lau teaches the frequency translating repeater according to claim 32, but lacks a teaching of wherein the transmit antenna and the receive antenna have opposite polarizations. Note that Lau teaches the repeater having two antennas (see figures 1-8). Official Notice is taken that it is notoriously well know that providing opposite polarizations would increase signal isolation between the transmit and receive signals. Therefore it would have been obvious to one of ordinary skill in the art to modify Lau as shown in the claim in order to increase isolation between transmit and receive signals.

Consider claim 34. Lau teaches the frequency translating repeater according to claim 32, but lacks a teaching of wherein the transmit antenna and the receive antenna are directionally isolated. Note that Lau teaches the repeater having two antennas (see figures 1-8). Official Notice is taken that it is notoriously well know that providing directional isolation would increase signal isolation between the transmit and receive

signals. Therefore it would have been obvious to one of ordinary skill in the art to modify Lau as shown in the claim in order to increase isolation between transmit and receive signals.

Consider claim 35. Lau teaches a non-regenerative (Lau teaches non-regenerative embodiments figures 14, 15) frequency translating repeater (Lau describes channel shifting, i.e. frequency translation, see column 4, lines 53-67, column 5, lines 30-39) having a first and a second RF channel, the non-regenerative frequency translating repeater comprising:

a control circuit configured to: receive a signal associated with a data packet on a first RF channel; translate the signal associated with the data packet to a second RF channel; and translate the signal from the second RF channel to the first RF channel with no re-generation of the signal (Lau figure 15, item 166); and

a modem coupled to the memory and the processor, the modem configured to control a management link between a wireless local area network and the non-regenerative frequency translating repeater (Lau figure 15, item 170, column 8, line 50 – column 9, lines 25. note that a modem would be required to communicate along the link).

Lau lacks a teaching of using a processor for the control circuit. Official notice is taken that it is notoriously well known in the art to configure control circuitry in a processor in order to reduce space requirements. Therefore it would have been

obvious to one of ordinary skill in the art to modify Lau as shown in the claim in order to provide the control circuitry in the smallest space possible.

Lau also lacks a teaching of providing a memory coupled to the processor. Official notice is taken that it is notoriously well known in the art to provide processors with memories in order to allow for storage of operating and control programming. Therefore it would have been obvious to one of ordinary skill in the art to modify Lau as shown in the claim in order to provide the control circuitry with operating and program storage.

Consider claim 36. Lau teaches the non-regenerative frequency translating repeater according to claim 35, further comprising one or more of the following components: a low noise amplifier (LNA), a power amplifier (PA), an up converter, and a down converter (Lau figures 14,15), and wherein the modem further includes a client device and wherein the one more of the components are shared between the non-regenerative frequency translating repeater and the client device (note that per the instant specification "client simply refers to the processors ability to utilize the communication protocol).

Consider claim 37. Lau teaches the non-regenerative frequency translating repeater according to claim 35, wherein the modem includes an IEEE 802.11 standard compliant device (Lau teaches 802.11 see column 2, lines 25-40).

Consider claim 38. Lau teaches the non-regenerative frequency translating repeater according to claim 35, wherein the modem is capable of receiving and

transmitting at least a sub-set of messages defined in IEEE 802.11 and derivative IEEE 802.11 (Lau teaches 802.11 see column 2, lines 25-40).

Consider claim 39. Lau teaches the non-regenerative frequency translating repeater according to claim 35, wherein the modem includes a standard client device (note that per the instant specification "client simply refers to the processors ability to utilize the communication protocol).

Consider claim 44. Lau teaches the non-regenerative frequency translating repeater according to claim 35, wherein the modem is further configured to communicate with one or more of: an access point (AP), and a repeater (Lau see figure 1-8).

Consider claim 45. Lau teaches the non-regenerative frequency translating repeater according to claim 44, wherein the AP includes an 802.11 AP (Lau teaches 802.11 see column 2, lines 25-40).

Consider claim 46. Lau teaches the non-regenerative frequency translating repeater according to claim 44, wherein one or more messages transmitted on the management link include: a MAC address of the repeater, and a MAC address of the access point (Lau teaches 802.11 see column 2, lines 25-40, note that 802.11 incorporates MAC addressing).

Consider claim 47. Lau teaches the non-regenerative frequency translating repeater according to claim 46, wherein the one or more messages include one or more of the following: a node identification message, an initial configuration message, a

configuration modification message, and a performance monitoring message (Lau teaches management at higher levels see column 10, lines 21-29).

Allowable Subject Matter

6. Claims 8-12, 20-23, 29,30, 40-43, 55-59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Consider claim 8. The nearest prior art as shown in Lau fails to teach the method according to claim 1, wherein the configuring at least one of the first and second RF links includes configuring the frequency translating repeater change transmission power of at least one of the first or second frequency channels.

Consider claim 20. The nearest prior art as shown in Lau fails to teach the frequency translating repeater according to claim 19, wherein the processor is further configured to: translate the detected signal: to the second frequency channel if the signal is detected on the first frequency channel of the first RF link for a time interval, to the first frequency channel if the signal is detected on the second frequency channel of the first RF link for the time interval, to the fourth frequency channel if the signal is detected on the third frequency channel of the second RF link for the time interval, and

to the third frequency channel if the signal is detected on the fourth frequency channel of the second RF link for the time interval.

Consider claim 29. The nearest prior art as shown in Lau fails to teach the frequency translating repeater of claim 19, further comprising a converter coupled to the transceiver and the processor, the converter configured to convert the signal to a digital signal and wherein the processor in detecting is further configured to: compare a power level associated with the signal power associated with the first and the second frequency channel determine a noise estimate associated with the power level; and compare the current signal power to this estimate as part of the detection process.

Consider claim 40. The nearest prior art as shown in Lau fails to teach the non-regenerative frequency translating repeater according to claim 35, further comprising a detector for detecting the signal and wherein the detector is shared between the non-regenerative frequency translating repeater and the modem .

Consider claim 55. The nearest prior art as shown in Lau fails to teach the apparatus according to claim 48 wherein the means for configuring at least one of the first and second RF links includes means for configuring the frequency translating repeater change transmission power of at least one of the first or second frequency channels.

Response to Amendment

7. Applicant's arguments filed June 10, 2009 have been fully considered but they are not persuasive.

Applicants assert that the examiner confused the teachings of Lau's T/R modules and the repeaters. The examiner suggests that the applicant has a more specific meaning to the term "management link" than is warranted by the claim language. It should be noted that while the applicant has quoted from Lau at length, the metes and bounds of the instant claim terminology have not been similarly dissected. The examiner has expanded the rejection comments above to note that the term "management link" does not in fact require any involvement of the repeater other than repeating the link. The nodes referred to in the claims could in fact be the T/R modules of Lau. Even assuming that the claimed link required involvement of the repeater, it is noted that the frequency translating repeaters of Lau do in fact have a means of controlling frequency translation, specifically in column 6, lines 1-3, the means of controlling the frequency translations "include sensing the source and/or destination of the signal and performing an appropriate repetition." This use of source and/or destination to set frequency repetition would appear to correspond to the claimed "configuring ... based on a message associated with the communication protocol...".

If applicant wishes to discuss the above reasoning, they are invited to contract the examiner for an interview.

Since the other arguments are based on the alleged deficiency which has been addressed above, they will not be further addressed.

8. Note, status of claim 30 has been clarified above, it is allowable.

Conclusion

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. THIS **ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177.

12. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA

22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip J Sobutka/
Primary Examiner, Art Unit 2618

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